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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,249

03/30/2006

Takashi Makiura

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04/10/2009

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EXAMINER

WALSH, RYAN D

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,249	<b>Applicant(s)</b> MAKIURA ET AL.	
	<b>Examiner</b> RYAN D. WALSH	<b>Art Unit</b> 2852	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurihara (JP 2000-330439).

Regarding claim 1, Kurihara teaches, "A cleaning device, comprising: a cleaning unit (Fig. 7) which is provided with an open portion (between 30 & 31 in Fig. 2) disposed opposite an outer circumferential portion of an image bearing member (102) and is disposed downstream of a position for transferring to a paper a toner image which is formed on the image bearing member; a cleaning blade (30 in Fig. 2) which is provided in the interior of the cleaning unit and wherein an apical portion abuts the outer circumferential portion of the image bearing member, for scraping off residual toner attached to the image bearing member; and a toner catching sheet (101) disposed upstream in a rotating direction of the image bearing member from the open portion of the main body of the cleaning unit body, said toner catching sheet being provided in the interior of the cleaning unit and parallel in a lengthwise direction to an axial direction of the image bearing member (102), wherein in the toner catching sheet (101), a first end portion (101 on 103) in a direction perpendicular to the lengthwise direction is affixed to the cleaning unit, a second end portion (against 102) opposed to the first end portion

Art Unit: 2852

abuts the outer circumferential portion of the image bearing member, the second end portion is parallel in the axial direction of the image bearing member (see Figure 8) and a free length from an affixed position of the first end portion until the position at which the second end portion abuts the outer circumferential portion of the image bearing member is determined by an amount of paper dust buildup on the outer circumferential portion of the image bearing member in the lengthwise direction (see abstract and Fig. 8).” *Note: Kaji (JP 09-090837) is cited to support the rejection of claims 1-3, to show where the majority of paper dust is built up. Kurihara is a 102b rejection because it teaches each and every structure claimed in claims 1-3.*

Regarding claim 2, Kurihara teaches, “wherein in the toner catching sheet, a first free length corresponding to a location at which there is a large amount of paper dust buildup on the outer circumferential portion of the image bearing member is longer than a second free length corresponding to a location at which there is a small amount of paper dust buildup on the outer circumferential portion of the image bearing member (see Figure 8 and Abstract, paper dust would be larger in center of 101).”

Regarding claim 3, Kurihara teaches, “further comprising a sheet attaching member for affixing the toner catching sheet to the cleaning unit in the interior of the cleaning unit, wherein the affixed position of the first end portion of the toner catching sheet with respect to the sheet attaching member includes a first affixed position which corresponds to the first free length and a second affixed position which corresponds to the second free length, the first affixed position being set to a position separated further from the outer circumferential portion of the image bearing member than the second

Art Unit: 2852

affixed position, such that the first free length is longer than the second free length (see Figure 8 and Abstract)."

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurihara (JP 2000-330439) in view of Kaji et al. (JP 09-090837), hereinafter referred to as Kaji.

Regarding claim 4, Kurihara does not teach, "wherein the location at which there is a large amount of paper dust buildup on the outer circumferential portion of the image bearing member corresponds to a region in which is disposed a separating member for transporting the paper to the image bearing member one sheet at a time in the axial direction of the image bearing member." However, Kaji teaches the deficiencies of Kurihara (see Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kurihara's invention to include wherein the location at which there is a large amount of paper dust buildup on the outer circumferential portion of the image bearing member corresponds to a region in which is disposed a separating member for transporting the paper to the image bearing member one sheet at a time in the axial direction of the image bearing member.

Art Unit: 2852

The ordinary artisan would have been motivated to modify Kurihara's invention in a manner described above for at least the purpose of removing paper dust or dirt from an area where a high buildup of paper dust occurs.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurihara (JP 2000-330439) in view of reference B (JP 58-010462).

Regarding claim 5, Kurihara does not appear to teach, "wherein the toner catching sheet is a resin film and is charged with the opposite polarity of charge characteristics of toner." However, reference B teaches the deficiencies of Kurihara (see partial of abstract cited on IDS). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kurihara's invention to include wherein the toner catching sheet is a resin film and is charged with the opposite polarity of charge characteristics of toner.

The ordinary artisan would have been motivated to modify Kurihara's invention in a manner described above for at least the purpose of easily attracting residual toner remaining on the photoconductive drum to facilitate the cleaning process.

#### ***Allowable Subject Matter***

Claims 6-11 are allowed.

#### ***Response to Arguments***

Applicant's arguments filed 2/4/2009 have been fully considered but they are not persuasive.

Applicant focuses on Figure 9 of Kurihara to show how the "second end portions" are not parallel in the axial direction of the image bearing member. The arguments are not persuasive for at least two reasons, set forth below:

1.) Figure 8 of Kurihara clearly shows the "second end portions" of the sheet, **parallel** in the axial direction of the image bearing member.

and,

2.) The "second end portions" shown in Figure 9 (depicted in applicant's remarks) **are parallel** in the axial direction of the image bearing member. The two members (photoconductive drum and toner catching sheet) are aligned along an axis with each other. While they may not be along the same angle with respect to each other, they are still parallel with each other.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2852

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. WALSH whose telephone number is (571)272-2726. The examiner can normally be reached on M-F 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/  
Supervisory Patent Examiner,  
Art Unit 2852

/Ryan D Walsh/  
Examiner, Art Unit 2852